



CATALOGUE OF THE PRODUCTS





DRAMIŃSKI Company, created in 1987 by Janusz Damiński, manufactures full range of electronic equipment used in farming, veterinary medicine and stock breeding.

Equipment designed and manufactured by our company is being exported to numerous European states and to other continents (North & South America, Asia, Africa & Oceania). We display our products at popular fairs home and abroad on a regular basis. We cooperate with research centers all over the world; therefore, our manufacturing plans include devices based on the most advanced technologies.

DRAMIŃSKI Company implemented the quality management system and was given a positive recommendation by Polish Center of Research and Certification, granting us **ISO 9001:2000 Certificate**.

The basic goal of the quality policy of DRAMIŃSKI Company is to strive for satisfaction of needs and demands of our customers. In order to achieve this goal we maintain high quality of our products and its repeatability.

Apart from providing constant, broad range of products, we struggle to meet our customers' needs halfway by designing and manufacturing new, technologically advanced equipment. Thank to our high technology we achieve lower prices in comparison with competitive products.

The top-priority for our company's strategy is to constantly improve our actions, standards of our products and services with a view to meet or even anticipate our customers' expectations.

Contents

Ultrasound scanner <i>Animalprofi</i>	4
Ultrasound scanner SonoFarm	13
The comparison of scanners	19
Ovulation Detector for cows and mares	20
Ovulation Detector for sows, ewes and goats	22
Ovulation Detector for dogs	24
Pregnancy Detector for sows, ewes and goats	26
Pregnancy Detector for dogs	28
Mastitis Detector for four quarters "4Q Mast"	30
Mastitis Detector for one quarter	32
Grain Moisture Meter	34
Grain Moisture Meter "Grain Master "	37
Grain Moisture and Density Meter	39
The comparison of grain moisture meters	41
Near Infra Red Analyser of grain content NIR-DRAM 100	42
Hay and Straw Moisture Meter	44

Portable Veterinary Ultrasound Scanner

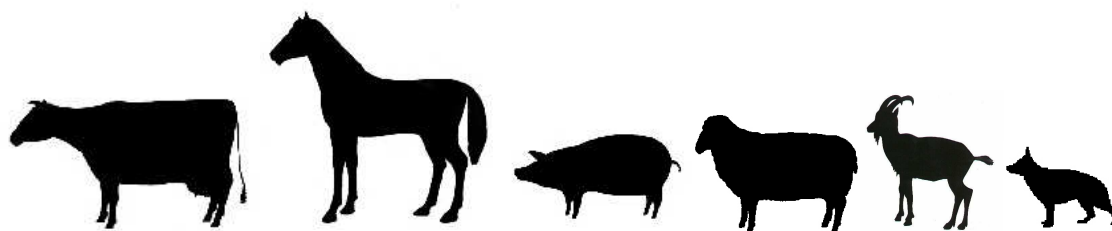
DRAMIŃSKI ANIMALprofi

the ideal equipment designed for working in difficult conditions

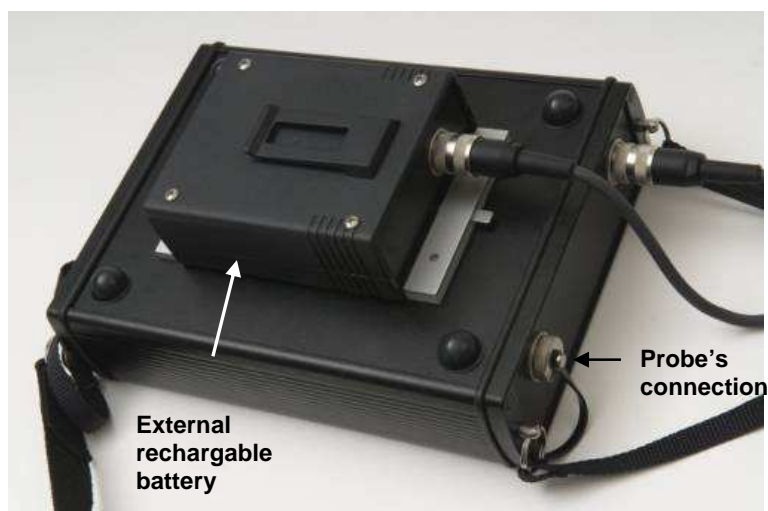


DRAMIŃSKI ANIMALprofi is the unique and professional ultrasound scanner that gives you a complete comfort of use.

It supplies you with extreme flexibility provided by an option to work both with rectal and abdominal probe. The scanner can be used both in small (pigs, sheep, goats, dogs, cats) and large animals (as cows and mares) to carry on fast, reliable and complete diagnosis of reproduction as early as on the nineteenth day of pregnancy. The abdominal probe also allows to measure the backfat in pigs.



Thanks to its robust aluminium housing it is practical to use even in the most demanding conditions. It resists climate inclemencies as water, dust, soil, sweat and shakes. Two batteries and the charger allows functioning of the scanner during all day without any unwanted pauses.



Solid aluminium housing- homologued by German IP65 protection norm
(waterproof, shockproof, dustproof)



Extremely robust



Waterproof

TECHNICAL DATA

<i>Display mode</i>	Image in real time, B Mode, B+B Mode
<i>Probe's frequency</i>	Multi frequency 3.5 - 5.0 – 7.0 MHz
<i>Standard probe</i>	Sector, mechanical (rectal or abdominal) interchangeable
<i>Scanning depth</i>	20 cm, 15 cm, 12 cm, 10 cm, 7 cm
<i>Scanning angle</i>	90°-abdominal probe, 90° /180° –rectal probe
<i>Monitor display</i>	LCD TFT, 6.4 inches
<i>Communication</i>	Keyboard incorporated
<i>Power supply</i>	2 Batteries NiMH, 12V, 3.8Ah
<i>Time of operation</i>	4 hours of work – 1 battery
<i>Charging time</i>	1 hour 45 minutes
<i>Battery indicator</i>	Automatic – acoustic and visual sign
<i>Unit dimensions</i>	L 20 cm - W 16,5 cm - H 5,5 cm
<i>Weight of scanner</i>	2,5 kg (probe and battery included)
<i>Weight of probe</i>	265g
<i>Weight of battery</i>	655g
<i>Operation temperature</i>	+ 5°C to + 40°C
<i>Storage temperature</i>	+ 0°C to + 45°C
<i>Zoom</i>	1x, 2x
<i>Memory</i>	200 images including the information about the animal's number, date, hour, probe's frequency used, day of pregnancy
<i>Cine Loop</i>	Additional memory (video reproduction of the last 15 seconds of examination)
<i>PC Transmission</i>	via USB
<i>Sealing level</i>	IP65 (water and dust resistant)
<i>Measurement</i>	The area, length and age of fetus
<i>Languages</i>	Menu and User's Manual in 5 languages
<i>Software</i>	To store and modify the images in the PC

DRAMINSKI ANIMALprofi stands out from the other equipment in the market not only because of competitive price but also thanks to being reliable and innovative by having extremely strong housing made of aluminum and excellent image resolution. Additional functions allows to analyse the results of the examination with a lot of precision.



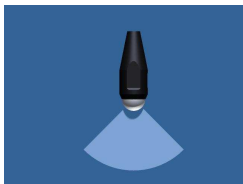
SPECIAL MODES OF THE SCANNER

- Mode B and B+B
- Double zoom
- Cineloop (reproduction of the last 15 seconds of video)
- Measurement of the picture: lenght and area
- Rulers and grid

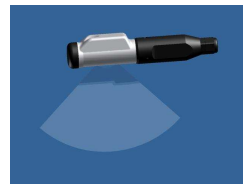
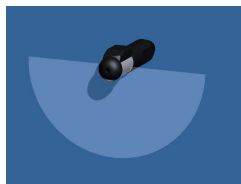


OTHER FEATURES OF THE SCANNER

- Excellent quality of picture and adequate size of scanner
- Display Philips LCD TFT 6.4 inches (262.000 colors, 256 grey scale)
- Gain control
- Interchangeables probes:

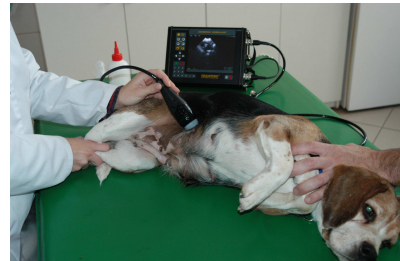


Scanning angle: 90°- abdominal probe



90° or 180° – rectal probe

- 2 batteries included (the life of use for more than 500 charging cycles)
- Quick charger (1 hour and 45 minutes per battery)
- Battery level on display
- Totally portable weight - only 2.5 kg (battery and probe included)
- Strap to carry scanner round the neck and hip strap
- Memory flash for storage up to 200 images with the animal data
- USB connexion to PC
- Software for downloading and storing the images in order to create reports
- Multilingual
- 2 years warranty
- 48 hours repair service in Poland

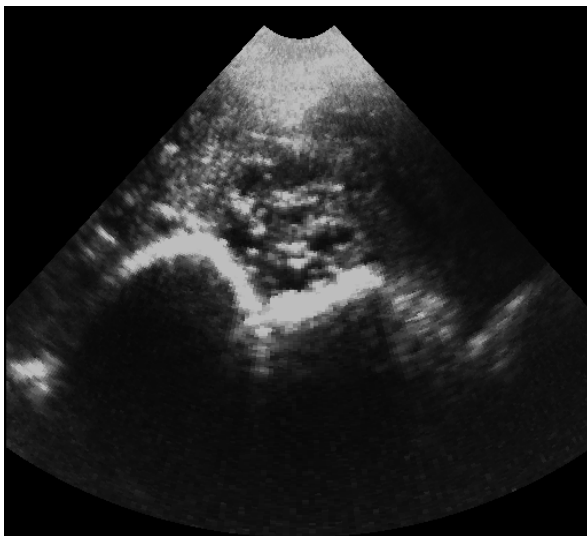


PACKAGE CONTENT

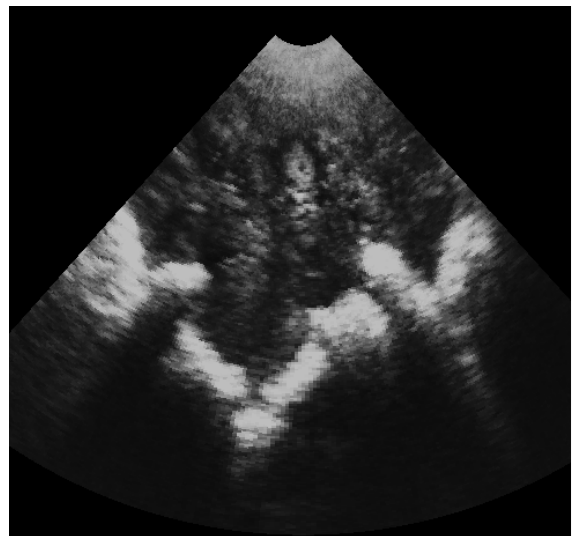


- ULTRASOUND SCANNER WITH ONE PROBE (ABDOMINAL OR RECTAL)
- 2 BATTERIES
- BATTERY CHARGER
- SET OF CABLES
- STRAPS FOR CARRYING SCANNER
- SOFTWARE AND USB CABLE
- HANDY AND EXTREMELY ROBUST CASE FOR TRANSPORTING SCANNER (watertight, airtight, corrosion proof and shockproof; virtually indestructible)
- GEL FOR ULTRASONOGRAPHY
- USER'S MANUAL

ULTRASOUND IMAGES



Pig – ovary



Pig - 17th day of pregnancy



Pig - 19th day of pregnancy



Pig - 31st day of pregnancy



Pig - 75th day of pregnancy



Pig - Backfat measurement



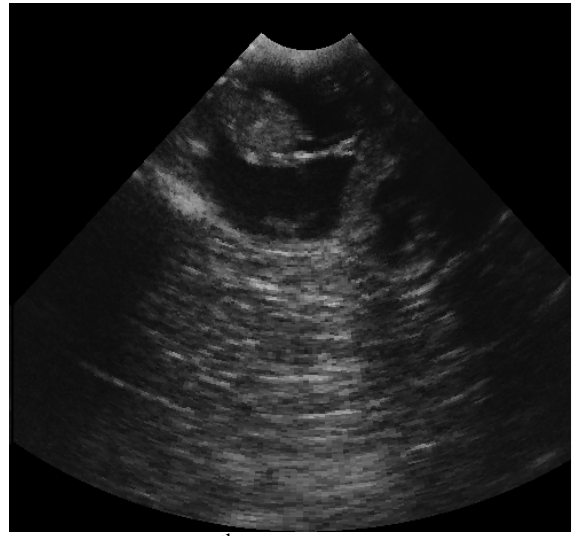
Sheep - 30th day of pregnancy



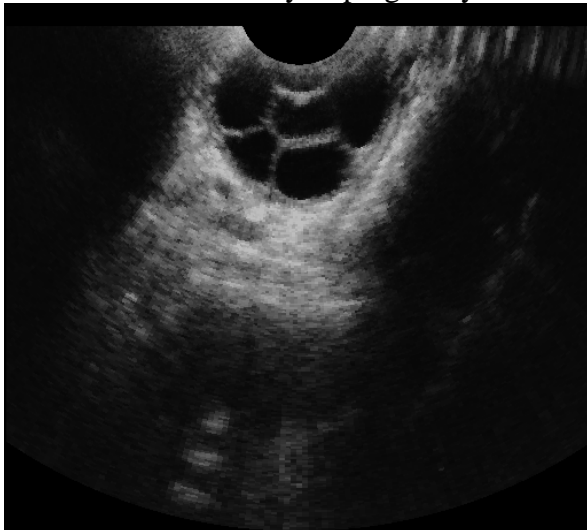
Sheep - 60th day of pregnancy



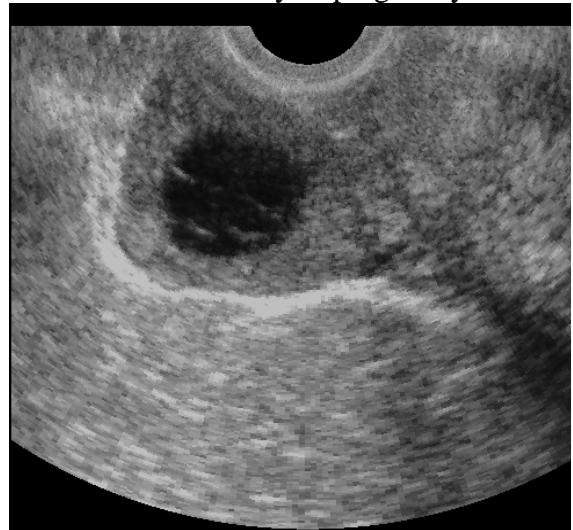
Goat - 35th day of pregnancy



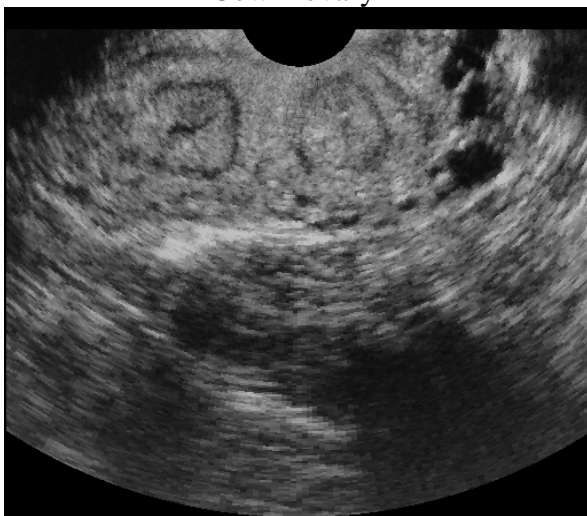
Goat - 50th day of pregnancy



Cow – ovary



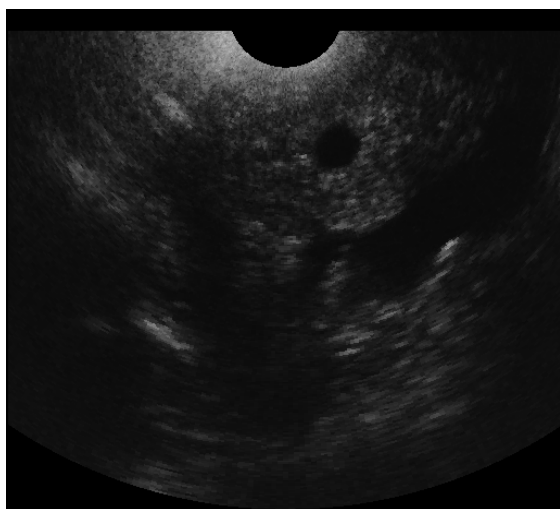
Cow - Ovary with cyst



Cow – horn of uterus



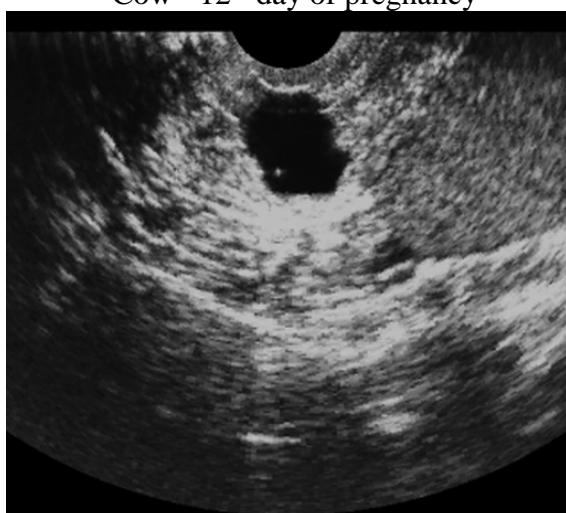
Cow – twin pregnancy



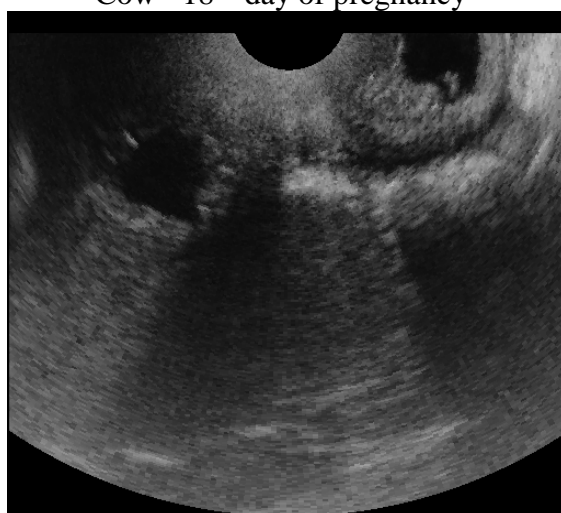
Cow - 12th day of pregnancy



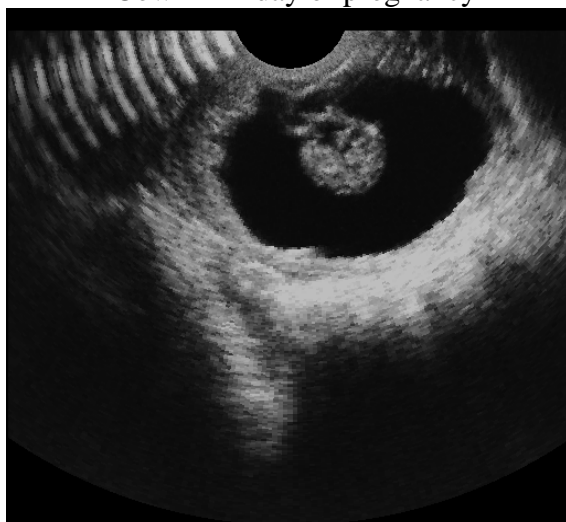
Cow - 18th day of pregnancy



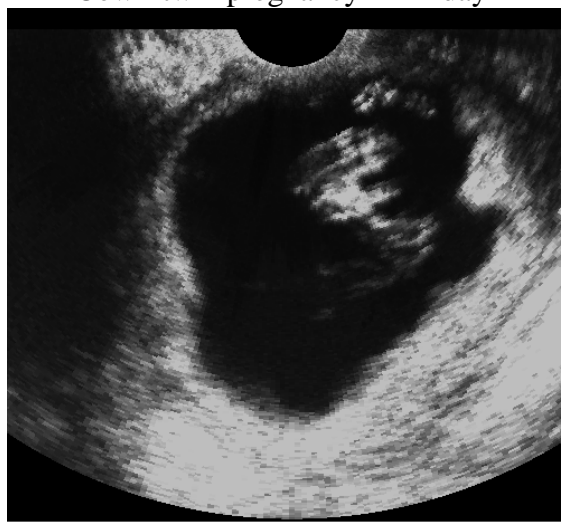
Cow - 21st day of pregnancy



Cow - twin pregnancy - 21st day



Cow - 35th day of pregnancy



Cow - 50th day of pregnancy

Portable Veterinary Ultrasound Scanner

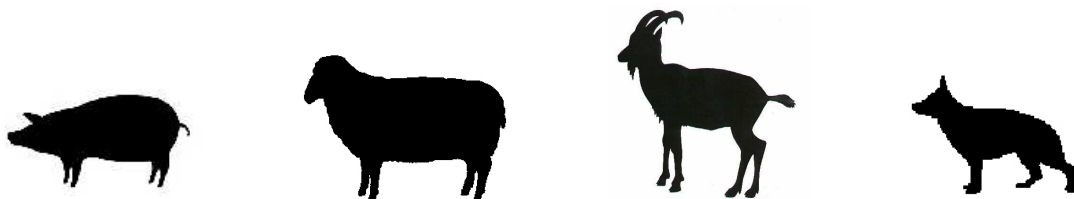
DRAMÍŃSKI SonoFarm *mini*

the ideal equipment designed for working in difficult conditions



DRAMÍŃSKI SonoFarm mini is the unique ultrasound scanner that gives you a complete comfort of use.

The scanner can be used in small animals as pigs, sheeps, goats, dogs to carry on fast and reliable pregnancy diagnosis as early as on the nineteenth day of pregnancy.



Thanks to its robust aluminium housing and small compact size it is practical to use even in the most demanding conditions. It resists climate inclemencies as water, dust, soil, sweat and shakes. The internal battery and the charger allows functioning of the scanner during three hours without any unwanted pauses.

Solid aluminium housing- homologued by German IP65 protection norm
(waterproof, shockproof, dustproof)



Extremely robust



Waterproof

DRAMINSKI SonoFarm stands out from the other equipment in the market not only because of competitive price but also thanks to being reliable and innovative by having extremely strong housing made of aluminum and very good image resolution.

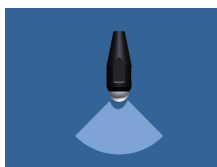


TECHNICAL DATA

<i>Display mode</i>	Image in real time, B Mode
<i>Probe's frequency</i>	5.0 MHz
<i>Standard probe</i>	Sector, mechanical abdominal
<i>Scanning depth</i>	20 cm, 15 cm, 12 cm, 10 cm, 7 cm
<i>Scanning angle</i>	90°
<i>Monitor display</i>	LCD, 5,0 inches
<i>Communication</i>	Keyboard incorporated
<i>Power supply</i>	1 internal battery NiMH, 14.4V, 2.2Ah
<i>Time of operation</i>	3,5 hours of work
<i>Charging time</i>	2 hours 50 minutes
<i>Battery indicator</i>	Automatic – acoustic and visual sign
<i>Unit dimensions</i>	L 17 cm - W 13 cm - H 5,5 cm
<i>Weight of scanner</i>	1,5 kg (battery included)
<i>Weight of probe</i>	265g
<i>Operation temperature</i>	+ 5°C to + 40°C
<i>Storage temperature</i>	+ 0°C to + 45°C
<i>Sealing level</i>	IP65 (water and dust resistant)

OTHER FEATURES OF THE SCANNER

- Good image quality and adequate size of scanner
- Scanning angle of abdominal probe 90°



- Freeze image
- Gain control

- Internal battery included (the life of use for more than 500 charging cycles)
- Quick charger (2 hour and 50 minutes)



- Battery level on display
- Totally portable weight - only 1,5 kg + probe
- 2 years warranty
- 48 hours repair service

PACKAGE CONTENT

- ULTRASOUND SCANNER WITH INTEGRATED ABDOMINAL PROBE
- INTERNAL BATTERY
- BATTERY CHARGER
- HANDY CASE FOR TRANSPORTING SCANNER
- GEL FOR ULTRASONOGRAPHY
- USER'S MANUAL

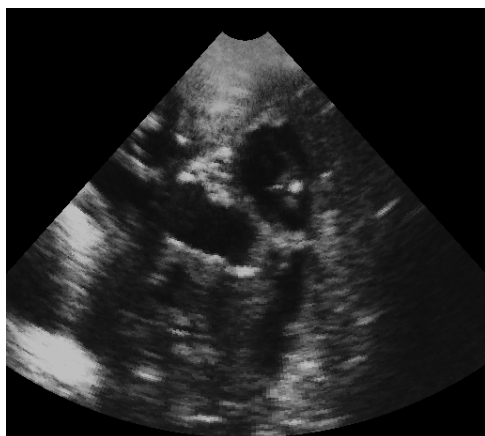
ULTRASOUND IMAGES



Pig - 17th day



Pig - 23rd day



Pig - 25th day



Pig - 28th day



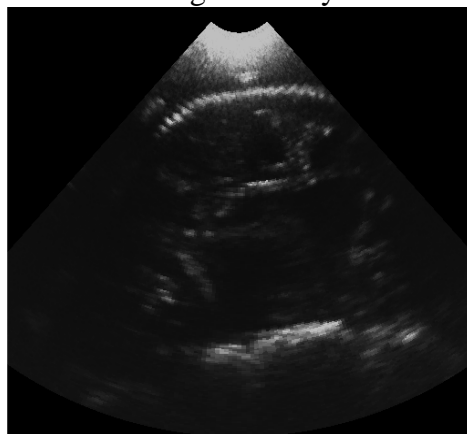
Pig - 30th day



Pig - 33rd day






Pig - 35th day



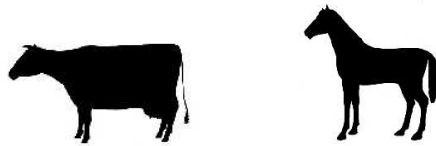
Pig - 90th day



COMPARISON OF DRAMINSKI SCANNERS		
SPECIFICATIONS:	ANIMALprofi	SonoFarm mini
<div> www.draminski.com</div>		
DIMENSIONS	22cm x 16.5cm x 5.5cm	17cm x 13cm x 5.5cm
WEIGHT (battery and probe included):	2.5 kg	1.8 kg
DISPLAY	6.4 inches,TFT LCD	5.0 inches, TFT LCD
DISPLAY MODES	B Mode, B+B Mode	B Mode
AVAILABLE PROBES	Sector, Mechanical 5.0 MHz	
	RECT	ABD
Penetration depth RECTAL PROBE	12cm, 10cm, 7cm	-----
Penetration depth ABDOM. PROBE	20cm, 15cm, 12cm, 10cm, 7cm	
Scanning angle RECTAL PROBE	180°	-----
Scanning angle ABDOM. PROBE	90°	
MEMORY - IMAGES	480 images	NO
MEMORY - CINE LOOP	119 frames	NO
PC TRANSMISSION	Optional	NO
MEASURE	Cursors	NO
	Grid	NO
	Rules	NO
GAIN	Gain 1 and Gain 2	
ADDITIONAL FUNCTIONS OF MENU	Setup	
	Measure	NO
	Storage	NO
	Mode	NO
HOUSING	Aluminium, IP 65 protection classification	
BATTERY, NO OF UNITS	2 EXTERNAL	1 INTERNAL
OPERATING TIME	4 hours / 1 battery	3 h 30 min
CHARGING TIME (1 BATTERY)	1h 45 min	2 h 50 min
BATTERY EXHAUSTED INDICATOR	YES	
ADDITIONAL FUNCTIONS	Freeze	
	Language selection	NO
	Double Zoom	
	Probe's signal filtration	
STANDARD EQUIPMENT		
1 PROBE	RECTAL or ABDOMINAL	ABDOMINAL
BATTERY	2	1
CHARGER	✓	✓
SET OF CABLES	✓	n / a
SET OF CARRYING STRAPS	✓	✓
TRANSPORTATION CASE	✓	✓
GEL FOR ULTRASONOGRAPHY	✓	✓
USER'S MANUAL	✓	✓
USE	COMPLETE REPRODUCTION DIAGNOSIS	PREGNANCY DETECTION
	Backfat Measurement	
	DOGS	
	PIGS / SHEEP / GOATS	
	COWS / MARES	NO

DRAMÍŃSKI ESTROUS DETECTOR

FOR COWS AND MARES



Determines the most fertile moment for breeding in animals.

The application of the most advanced technology enables for the breeder to determine very precisely the exact moment of the estrous cycle when the ovulation takes place (also in the case of so called silent heat!!!).

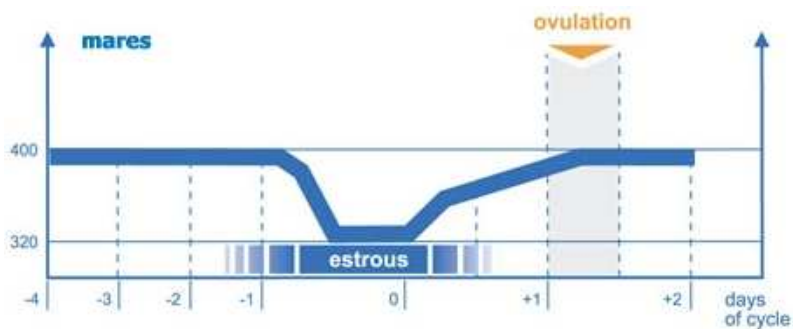
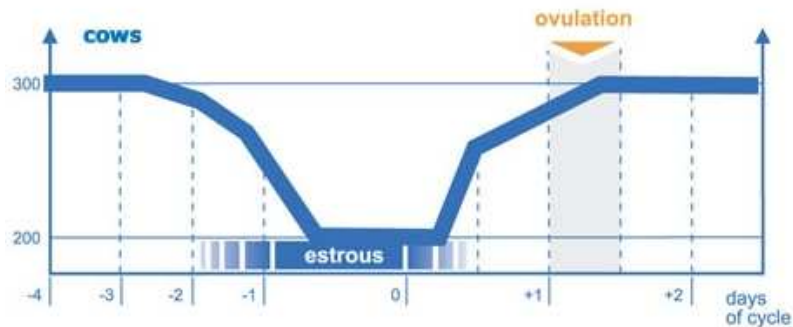


The Estrous Detector monitors changes in electrical resistance of the vaginal mucus. Measurements are taken simply by properly inserting the probe in the vagina and taking the reading. No prior technical knowledge on the part of the operator is required. The big, easy-to-grip handle ensures that the instrument is not easily kicked out of the user's hand and the easy-to-read display makes reading the results more convenient.



One or two daily readings over several successive days are recommended for fail-safe detection of estrous.

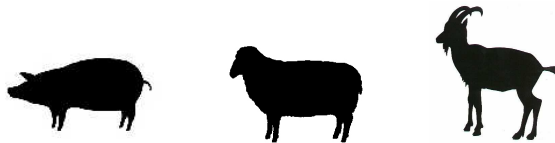
There are also available versions for sows, ewes as well as dogs.



Technical data:

weight:	approx 0.3 kg.
power supply:	1 battery 9 V, type 6F22
power consumption:	approx. 8 mA
display:	3 digits, LCD
smallest unit:	10 units = 1 ohm (1 unit = 0,1 ohm)
measurement range:	0 - 1990 units
work temperature:	0 - 70°C
max. humidity:	85%

DRAMIŃSKI ESTROUS DETECTOR FOR SOWS, EWES AND GOATS



Determines the most fertile moment for breeding in animals.

The application of the most advanced technology enables for the breeder to determine very precisely the exact moment of the estrous cycle when the ovulation takes place (also in the case of so called silent heat!!!).

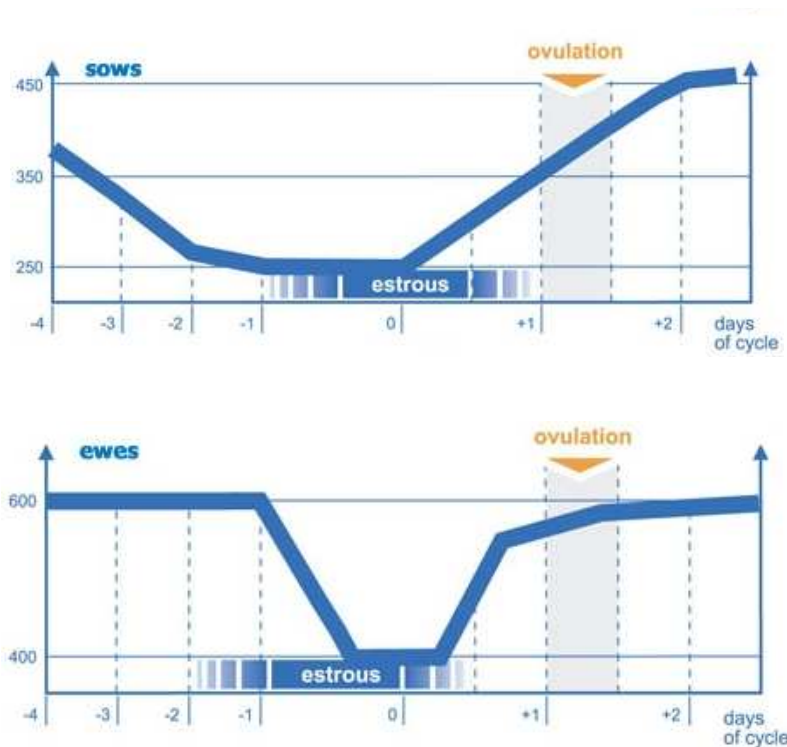


The Estrous Detector monitors changes in electrical resistance of the vaginal mucus. Measurements are taken simply by properly inserting the probe in the vagina and taking the reading. No prior technical knowledge on the part of the operator is required. The big, easy-to-grip handle ensures that the instrument is not easily kicked out of the user's hand and the easy-to-read display makes reading the results more convenient.



One or two daily readings over several successive days are recommended for fail-safe detection of estrous.

There are also available versions for cows and mares as well as dogs.



Technical data:

weight:	approx 0.3 kg.
power supply:	1 battery 9 V, type 6F22
power consumption:	approx. 8 mA
display:	3 digits, LCD
smallest unit:	10 units = 1 ohm (1 unit = 0,1 ohm)
measurement range:	0 - 1990 units
work temperature:	0 - 70°C
max. humidity:	85%

DRAMIŃSKI ESTROUS DETECTOR FOR DOGS



The detector is a portable device that helps determining the optimal time for mating.



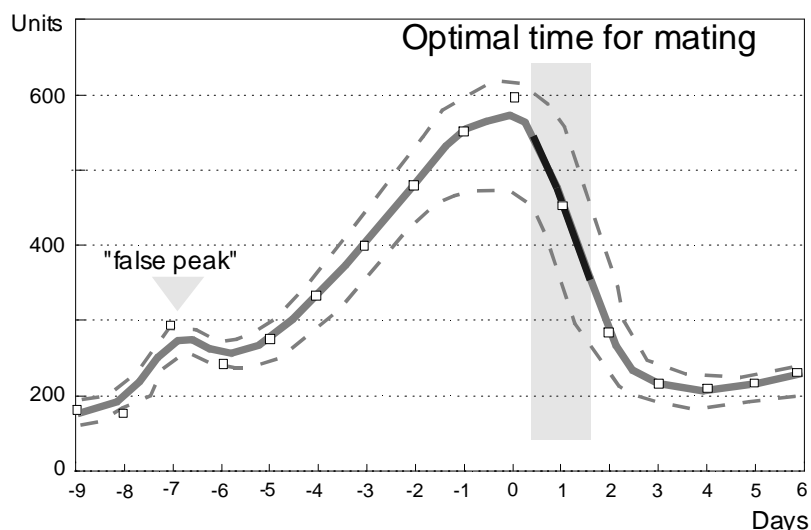
The detector is a small, portable and very versatile instrument which is powered by a common 9V battery. It gives readouts of electrical resistance of vaginal mucus which undergoes characteristic changes during the course of heat.



The detector for dogs enables:

- exclusion of multiple mating of the bitch
- identification of so called "false heat"
- elimination of problems associated with disorders during heat
- time saving
- great reduction in financial costs of multiple mating

The Ovulation Detector for dogs has given favourable results in tests at the Obstetrics Department. of the Faculty of Veterinary Medicine at the University of Agriculture and Technology, Olsztyn, Poland. The advantages of using the detector have also been confirmed by research carried out at the university in Giessen, Germany.



Technical data:

weight:	approx. 0.3 kg
power supply:	1 battery 9V, type 6F22
power consumption:	approx. 12 mA
display:	3 digits, LCD
smallest unit:	10 units
measurement range:	0 to 1990 units
working temperature:	0 to 50 °C
max. humidity:	85%



DRAMIŃSKI PREGNANCY DETECTOR FOR SOWS, EWES AND GOATS



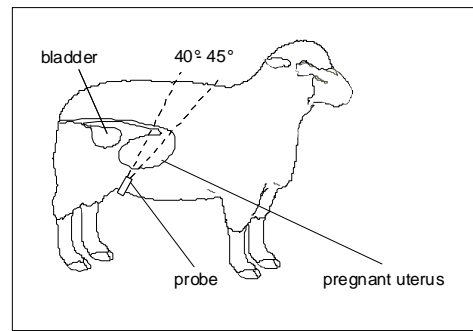
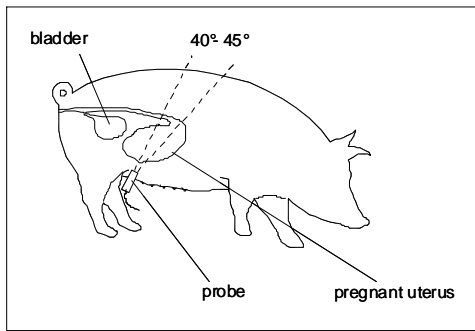
This is a fully portable and cost effective ultrasonic instrument significantly increasing breeding efficiency.

It identifies with the maximum accuracy whether an animal is pregnant.



The detector determines pregnancy by locating amniotic fluid in the uterus.

The testing procedure is easily implemented by simply pressing the ultrasonic probe against the animal's skin. When pregnancy is detected, the instrument signals this not only with a rapidly flashing indicator, but also with a high-frequency acoustic signal. Only one button is used for operation.



There are three models of pregnancy detectors:

- for pigs
- for sheep (it can be used with a success also for goats)
- for dogs

Technical data:

size: width 75 mm, length 120 mm, height 30 mm

weight: 250 g

power supply: 9V alkaline battery or rechargeable battery

automatic low-battery indicator

work temperature: 0°C to +60°C

DRAMIŃSKI PREGNANCY DETECTOR FOR DOGS



Portable and cost effective ultrasonic instrument which identifies whether a bitch is pregnant or not with maximum accuracy.

This is portable device, powered by the battery. Easy to use enables quick and reliable determination of the pregnancy.

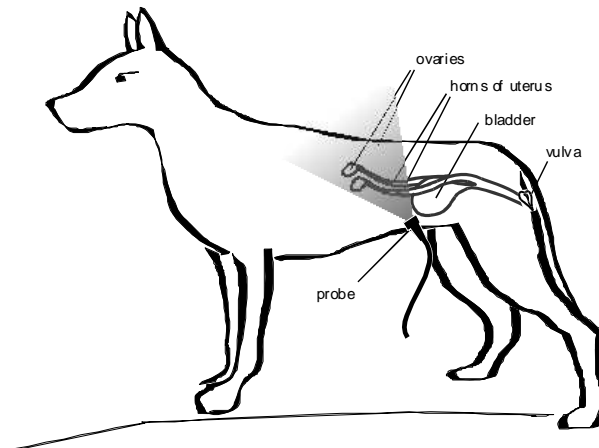


The DRAMIŃSKI Ultrasonic Pregnancy Detector determines pregnancy in dogs by locating amniotic fluid in the uterus.

It is ideally suited to pregnancy determination for individual breeders, large breeding & show kennels, veterinary surgeries and commercial organisations alike.

It is designed to be easy to use, maintain and provide rapid results with maximum accuracy.

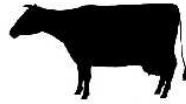
There is the possibility to set the instrument depending on the size of the dog.



Technical data:

size:	(L x W x H)120mm x 75mm x 30mm
weight:	approx. 250g
power supply:	alkaline battery 9V (automatic low - battery indicator)
working temperature:	0°C to + 60°C

**DRAMINSKI 4QMast –
MASTITIS DETECTOR FOR FOUR QUARTERS**



The DRAMINSKI "4Q Mast" is a new, modified version of MASTITIS DETECTOR. This state of the art instrument unfailingly detects sub-clinical mastitis in its earliest, visually undetectable stage.



It is a valuable and trustworthy aid to maintain a healthy herd and higher quality milk production.

Why choosing 4QMast?

Simply because:

- improves returns by unmasking mastitis in its earliest invisible stage
- enables early treatment and preventing the permanent damage to the udder
- monitors your herd to ensure higher quality milk production
- displays 4 readings at once and compares them

The great innovation is a special display which shows results for 4 quarters all at once. This feature makes the examination faster and more effective.

It is really helpful while comparing and interpreting readings.

The detector is easy to use, taking measurements requires no assistance.

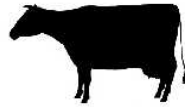


Technical data:

weight:	300g
power supply:	9V battery, standard or alkaline
power consumption:	14mA
display:	LCD, 4 blocks of 3 digits
smallest unit:	10 units
measurement range:	10 to 990 units
storage and work temperature:	0 to 50° C
max. humidity :	95%
low - battery indicator:	blinking battery



DRAMINSKI MASTITIS DETECTOR



This state of the art instrument unfailingly detects sub-clinical mastitis in its earliest, visually undetectable stage.



It is a valuable and trustworthy aid to maintain a healthy herd and higher quality milk production.

The advantages of Mastitis Detector:

- improved returns by unmasking mastitis in its earliest invisible stage
- early treatment and prevention against the permanent damage to the udder
- monitoring your herd to ensure higher quality milk production

The mastitis detector's sensors detect and analyse minute changes in the electrical resistance of the cow's milk. Quality milk never fails the test whereas milk from a quarter with undetected mastitis will.



Technical data:

weight:	approx. 300 g.
power supply:	9 V battery, type 6 F22
power consumption:	approx. 12 mA
display:	LCD screen, 3 digits
smallest unit:	10 units
measurement range:	10 to 990 units
work and storage temperature:	0°C to 50°C
max. humidity:	95%

DRAMIŃSKI GRAIN MOISTURE METER



Portable moisture meter for seeds, grains and cereals.

Your best adviser when making quick decisions !

An absolute must wherever cereals and other seeds are stored or processed.



Whole grain is measured in the moisture meter with no prior grinding necessary. This aspect of the moisture meter reduces significantly the measurement time.



Moisture Meter is programmed by DRAMINSKI for 15 types of seed given below (humidity measurement range):

Grains:

- rye (8% - 35%)
- common wheat (8% - 35%)
- quality wheat (8% - 35%)
- triticale (8% - 35%)
- spring barley (8% - 35%)
- oats (8% - 35%)
- buckwheat (8% - 35%)
- maize (9% - 38%)

Leguminous plants:

- broadbean (8% - 35%)
- yellow lupin (8% - 35%)
- blue lupin (8% - 35%)
- pea (8% - 35%)
- field pea (8% - 35%)
- beans (8% - 35%)

Oliferous plants:

- rape (4,5% - 30%)

The list of seeds can be modified according to needs of the user. It is possible to programme the Moisture Meter to test any 15 types of seeds out of 40 available.

Testing procedures are followed according to the command-prompts shown on the 16-character display, thus, no memorisation of procedures is needed in performing everyday tests. Furthermore, models are available featuring a choice of languages from the manufacturer.

The meter also comes with a "Data Modification Mode" which enables the user to make adjustments of the moisture curve to suit the local conditions and specie varieties. These adjustments can be stored in the memory until erased by the user.

Technical Data:

power supply:	battery 9 V, type 6F22
power consumption:	approx. 12 mA
display:	LCD alfanumeric, 2 x 16 characters
temp. measurement range:	0 °C to approx. 70 °C
accuracy (temp):	±1 °C
accuracy (moisture):	1% (in the range up to 10%) 1,5% (in the range up to 20%).
size:	length 18 cm, width 15 cm, height 9 cm
weight:	1050 g (with dosage tube)
work temperature:	0°C to 45°C



DRAMINSKI Grain Moisture Meter was tested by **DLG**
(German Agricultural Association).



DRAMIŃSKI GRAIN MOISTURE METER "GRAIN MASTER"



The Grain Master is a perfect tool for field applications.



It has grinding function for more exact results. It is the most recommended for big sized grains.



This is state of the art instrumentation is programmed for (humidity measurement range):

- rape (4,5% - 30%)
- rye (9,5% - 29%)
- common wheat (9,5% - 30%)
- quality wheat (9,5% - 30%)
- barley (9,5% - 30%)
- triticale (9,5% - 29%)
- oats (9,5% - 30%)
- maize (9,5% - 40%)

Technical data:

sample application:	manual with sampler
power supply:	alkaline battery 9, automatic low battery indicator
measurement control:	one-unit microprocessor
display:	alfanumeric LCD screen, 2 x16 digits
resolution:	resolution 0,1 %
accuracy:	± 1.0% (in the range up to 10%) and ± 1.2%.(in the range >10%)
data storage:	flash memory
work temperature:	10°C to 35°C (resolution 0.5°C)
temp. compensation:	automatic in the range 10°C to 35°C
storage temperature:	min. +10°C, max.+45°C
weight:	1550g
size:	21cm x 11cm x 11cm

DRAMIŃSKI GRAIN MOISTURE AND DENSITY METER



An absolute must wherever cereals and other seeds are stored or processed.



This instrument gives its user two measuring options:

- measurement of moisture content as a percentage
- measurement of density with results given in kg3






This moisture and density meter is state of the art instrumentation programmed for (humidity measurement range):

- common wheat (9% - 24%)
- strong variety wheat (9% - 24%)
- rye (9% - 24%)
- triticale (9% - 24%)
- spring barley (9% - 24%)
- oats (9% - 24%)
- rape (4% - 20%)
- maize (9% - 24%)

Technical data:

weight:	approx.1985 g
display:	LCD alfanumeric screen, 2x16 characters
power supply:	built-in battery CdNi of 1000 mAh capacity
working time:	approx. 15 h., automatic low battery indicator
work and storage temperature:	min. +5°C, max.+45°C
low battery indicator:	LO BAT
sample application:	from the dosage tube, half-automatic
applied method:	capacity and weight method
power consumption:	30 mA
measurement control:	one-unit contrler
accuracy:	±0,8% in range to 10% moisture, ±0,4% in range more than 10%
temp. compensation:	automatic in the range 10°C to 35°C



Comparison of Draminski Grain Moisture Meters			
SPECIFICATIONS	GRAIN MOISTURE METER	GRAIN MASTER	GRAIN MOISTURE & DENSITY METER
Abbreviation	GMM	GM	GMDM
EQUIPMENT			
Description	Your best advisor when making quick decisions	A perfect tool for field applications	An absolute must wherever cereals and other seeds are stored or processed
Measurement	Humidity (%)	Humidity (%)	Humidity (%), Density (kg/hl)
Elements of equipment	with dosage tube	with sample grinding	with dosage tube
Precision (margin error)	1% in range up to 10% humidity 1.5% in range over 10% humidity	1% in range up to 10% humidity 1,2% in range over 10% humidity	0,8 % in range up to 10% humidity 0,4% in range over 10% humidity
Weight (Kg.)	1050g	1400g	1985g
Working temperature	0-35 °C	5-45 °C	5-45 °C
Dimensions	18cm x 9cm x 15cm	22cm x 11cm x 10cm	19cm x 16cm x 10cm
Power supply	Battery 9V, type 6F22	Battery 9V, alkaline	built in CdNi battery, cap.1000 mAh
Battery	replaceable	replaceable	chargeable (with battery charger)
Battery life	approxim. 20 hours	approxim. 20 hours	aproxim. 15 hours
Display	LCD alphanumeric 2x16 digits	LCD alphanumeric 2x16 digits	LCD alphanumeric 2x16 digits
Number of grain types	15 from 40 possible	8	8
PROGRAMMED FOR THE FOLLOWING PLANT SPECIES (measurement range)			
Rape	4,5-30%	4,5-30%	4-20%
Rye	8-35%	9,5-29%	9-24%
Common wheat	8-35%	9,5-30%	9-24%
Strong variety wheat	8-35%	9,5-30%	9-24%
Triticale	8-35%	9,5-29%	9-24%
Buckwheat	8-35%	x	x
Spring barley	8-35%	9,5-30%	9-24%
Oats	8-35%	9,5-30%	9-24%
Maize	9-38%	9,5-40%	9-24%
Broadbean	8-35%	x	x
Yellow lupin	8-35%	x	x
Blue lupine	8-35%	x	x
Pea	8-35%	x	x
Field pea	8-35%	x	x
Bean	8-35%	x	x
FEATURES / DIFFERENCES / PURPOSE OF USE			
Accuracy	MIDDLE	MIDDLE	HIGH
Warranty (years)	2	2	2
Calibration	Modification mode for users	NO modification mode	NO modification mode
Sample size	200 cm3	10 cm3	250 cm3
STRENGTHS	For most plant species. The highest range of measurement.	Great precision. The most recommended for big sized grains like maize.	The most accurate results. Minor error. Battery charger in a standard eq.
WEAKNESSES	Less accurate measurement.	The measurement must be repeated 3 times in order to obtain the average value. Less practical because of the time needed for the measurement of one sample.	The lowest range of measurement.
General description	It is not recommended to use large grains (ex.maize) which create big air spaces in dispenser. That may influence the final result of the measurement.	Recommended for large grains as maize because of a grinding function that lowers the influence of humidity on the final result.	The density of sample is an important parameter that helps obtaining the precise result and gives the warranty of slight error.
Designed for:	<i>Small farms</i> <i>internal use of farmer</i>	<i>Small farms</i> <i>internal use, for those who need to measure the humidity inside and outside the grain</i>	<i>Most demanding users and grain collection points</i> <i>for those who need a high accuracy of measurement and data for the external use</i>



DRAMIŃSKI NIR-DRAM 100
NEAR INFRA RED ANALYSER OF GRAIN CONTENT



The analyser is an advanced hi-tech device for measuring grain & flour composition by spectral analysis in the near-infrared spectral range.



The device is especially useful for:

- companies purchasing grains for processing.
- businesses purchasing and storing large batches of grain.
- middle-sized and large companies acting on behalf of government agencies that intervene on the agricultural produce markets (in Poland: ARR) to purchase and safely store grains.
- grain processing plants.



- fodder manufacturers.
- other organizations that need to efficiently and quickly assess grain or flour parameters.

At present NIR-DRAM 100 measures the following parameters:

1. For wheat

- protein
- gluten
- the Zeleny sedimentation indicator
- moisture for falling number

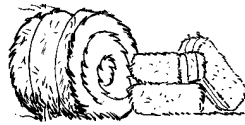
2. For wheat flour (type 550 and 750):

- protein
- gluten
- moisture
- ash
- the Zeleny sedimentation indicator

Technical data:

power supply:	230V / 50 Hz mains
method of analysis:	spectral analysis by NIR reflectometry
measurement control:	single chip microcomputer
display:	LCD screen
data storage:	non-volatile EEPROM memory
calibration:	calibration data for each spectral range filter/product combination stored in the device memory
temperature:	15°C to 35°C
weight:	25 kg
storage conditions:	temperature +10 to + 40°C, relative humidity below 85%

DRAMIŃSKI MOISTURE METER FOR HAY AND STRAW



This hand-held instrument is invaluable in estimating moisture content in hay and straw as a means of ensuring safer storage and prevention of damage to harvested crops.



The moisture meter measures changes in electrical conductivity in hay and straw and converts this into a percentage moisture reading.

It provides two all-important readings:

- moisture
- temperature

The memory feature allows the user to store up to 50 results such as: average, maximum and minimum readings.





Technical data:

Weight:

- with a cable	870 g
- without a cable	740 g
probe length:	56 cm
connection cable (cable version):	100 cm
power supply:	9 volt battery
display:	LCD, 3 digits
measurement range (moisture):	10 to 80 %
measurement range (temperature):	1to 100°C